

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-14 are now pending in this application.

Rejection under 35 U.S.C. § 112

Claim 10 is rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. Although Applicant believes that one of ordinary skill in the art would understand that the disclosure of Applicant's application provides support for the feature of claim 10, particularly the discussion of a radiator located in a forward portion of a vehicle, and that claim 10 was an originally filed claim that is included in the disclosure of Applicant's application, claim 10 has been amended without prejudice or disclaimer to further the prosecution of this application. Applicant respectfully submits that the amendment to claim 10 renders this rejection moot. Reconsideration and withdrawal of this rejection is respectfully requested.

Rejections under 35 U.S.C. § 103

Claims 1-4, 10, 11, and 14 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Pub. No. 2002/0037447 to Imaseki *et al.* (hereafter "Imaseki"). This rejection is respectfully traversed.

Applicant notes that claim 11 is also rejected over the combination of Imaseki and U.S. Pub. No. 2001/0050191. The Office does not explain how Imaseki alone can be used to reject claim 11 if the combination of Imaseki and U.S. Pub. No. 2001/0050191 is also

required to reject claim 11, apparently in an attempt to cure the deficiencies of Imaseki. Applicant submits that the rejection of claim 11 over the combination of Imaseki and U.S. Pub. No. 2001/0050191 demonstrates that Imaseki alone does not disclose or suggest all of the features of claim 11.

Imaseki discloses a cooling system for a fuel cell that includes a first circulating passage 11, a first circulating pump 12, a bypass line 11A, a heat exchanger 3, and a heat regulator 13. See Imaseki at paragraph 0025 and Figure 1.

However, Imaseki does not disclose or suggest a vehicle comprising a vehicle compartment having an underfloor portion and a motor room arranged in front of the vehicle compartment, wherein a vehicle drive motor is disposed in the motor room, a fuel cell is disposed in the underfloor portion and a fuel cell temperature control apparatus is provided to control a temperature of the fuel cell, the fuel cell temperature control apparatus comprising, among other things, a heat exchanger mounted in the motor room, a coolant circuit, a coolant pump, wherein the coolant pump is mounted in the underfloor portion, and a bypass circuit mounted in the underfloor portion, wherein the heat exchanger is connected with the fuel cell through the bypass circuit, and the bypass circuit is connected to the coolant circuit to permit the coolant to bypass the heat exchanger. Claim 14 includes similar language. Claims 2-13 depend from claim 1.

Applicant notes that the invention advantageously causes coolant to flow into a bypass circuit at a location relatively close to the fuel cell without passing across or through the heat exchanger during a warm-up operation of a fuel cell, thus enabling a reduction in the amount of heat to be radiated from the coolant and enabling the fuel cell to be warmed up within a shortened period of time. Further, the placement of the bypass circuit together with the fuel cell in a vehicle underfloor portion permits these components to be located closer to one another, allowing the amount of coolant to be circulated during use to be decreased and the amount of coolant requiring an increase in temperature during warm-up to be decreased, thus enabling a warm-up operation to be expedited and an improvement in the controllability of a resulting discharge pressure of a coolant pump, thereby facilitating control of coolant pressure for the fuel cell.

The Office suggests on page 3 of the Office Action that Imaseki does not disclose or suggest that a fuel cell is disposed in an underfloor portion of a vehicle, a coolant pump is mounted in the underfloor portion, a heat exchanger is mounted in a motor room of the vehicle, or that a bypass circuit is mounted in the underfloor portion, as recited in claims 1 and 14. The Office argues that Imaseki suggests these features, arguing that Figure 1 of Imaseki suggests the location of these components. Applicant respectfully disagrees.

Figure 1 of Imaseki is a schematic with boxes and lines that merely indicate the existence of components in a fuel cell system 1, such as a fuel cell FC, a first circulating passage 11, a first circulating pump 12, a bypass line 11A, a heat exchanger 3, and a heat regulator 13. Imaseki is silent in regard to the fuel cell FC being disposed in an underfloor of a vehicle, the pump 12 being mounted in an underfloor, the heat exchanger 3 being mounted in a motor room of a vehicle, or that the bypass 11A is mounted in an underfloor portion, as recited in claims 1 and 14. Figure 1 of Imaseki does not provide any disclosure or suggestion as to the location of the fuel cell FC, pump 12, heat exchanger 3, and bypass 11A in relation to an underfloor and motor room of a vehicle.

For at least the reasons discussed above, Imaseki does not render claims 1-4, 10, 11, and 14 to be unpatentable because Imaseki does not disclose or suggest all of the features of claims 1 and 14. Reconsideration and withdrawal of this rejection is respectfully requested.

Claims 5 and 6 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Imaseki in view of U.S. Pub. No. 2002/0061426 to Imaseki *et al.* (hereafter “Imaseki ‘426”) and U.S. Pub. No. 2001/0050191 to Ogawa *et al.* (hereafter “Ogawa”). This rejection is respectfully traversed. Imaseki ‘426 and Ogawa fail to remedy the deficiencies of Imaseki discussed above in regard to independent claim 1, from which claims 5 and 6 depend. Reconsideration and withdrawal of this rejection is respectfully requested.

Claims 7 and 11 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Imaseki in view of U.S. Pub. No. 2001/0050191 to Ogawa *et al.* (hereafter “Ogawa”). This rejection is respectfully traversed. Ogawa fails to remedy the deficiencies of Imaseki discussed above in regard to independent claim 1, from which claims 7 and 11 depend. Reconsideration and withdrawal of this rejection is respectfully requested.

Claim 8 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Imaseki in view of Imaseki ‘426. This rejection is respectfully traversed. Imaseki ‘426 fails to remedy the deficiencies of Imaseki discussed above in regard to independent claim 1, from which claim 8 depends. Reconsideration and withdrawal of this rejection is respectfully requested.

Claim 9 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Imaseki in view of U.S. Patent No. 5,449,568 to Micheli *et al.* (hereafter “Micheli”). This rejection is respectfully traversed. Micheli fails to remedy the deficiencies of Imaseki discussed above in regard to independent claim 1, from which claim 9 depends. Reconsideration and withdrawal of this rejection is respectfully requested.

Claims 12 and 13 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Imaseki in view of U.S. Pub. No. 2002/0081468 to Shioya (hereafter “Shioya”). This rejection is respectfully traversed. Shioya fails to remedy the deficiencies of Imaseki discussed above in regard to independent claim 1, from which claims 12 and 13 depend. Reconsideration and withdrawal of this rejection is respectfully requested.

Conclusion

Applicant submits that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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